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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,836	11/06/2001	Kiyoshi Tateishi	041465-5126	4513

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MORGAN LEWIS & BOCKIUS LLP  
1111 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2656

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/985,836

Applicant(s)

TATEISHI, KIYOSHI

Examiner

Jorge L. Ortiz-Criado

Art Unit

2656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Species of Fig. 4, claims 1,2, 5-8 and 22-26 in the reply filed on 10/07/2005 is acknowledged. The traversal is on the ground(s) that the application contains claims that are directed to two species, as being

- a. Fig. 1-4.
- b. Fig. 1-5

This is not found persuasive because, this application contains claims directed to the following patentably distinct species of the claimed invention:

- a. Figure. 1, an embodiment of an arrangement of recording layers of an optical disk as an optical recording medium of a 4-layer disc
- b. Fig. 4, a second embodiment of an arrangement of recording layers of an optical disk as an optical recording medium of a 2-layer disc.
- c. Fig. 5, a third embodiment of an arrangement of recording layers of an optical disk as an optical recording medium of a 2-layer disc.
- d. Fig. 6, a fourth embodiment of an arrangement of recording layers of an optical disk as an optical recording medium of a 2-layer disc.

Furthermore, no generic claims have been found. The asserted generic claims 22 and 25 by the Applicant have not been found generic as well, at most because none of the Species above identified as shown in the figures and/or as disclosed in whole pages 1-41 of the specification, is

Art Unit: 2656

describing a physical addresses in a land track allocated discontinuously from physical addresses in a groove track in each recording layers. Also claims 22 and 25 are not generic, at most to the invention claimed in claim 1, drawn to species of Figure 4.

2. Claims 9-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in the reply filed on 10/07/2005.

3. Claims 22-23 and 25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/07/2005.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 5-8, 24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Akiyama et al. U.S. Patent No. 6,754,143.

Regarding claim 1 and 2, an optical recording medium having a plurality of recording layers of a double-spiral structure in which information is recorded on both of land tracks and groove tracks (see Fig. 7), wherein a spiral (20,21) of a first recording layer (14) of said recording layers is in a forward direction, a spiral (22,23) of a second recording layer (16) of said recording layers is in a backward direction, and first information is recorded on one of a land track and a groove track of said first recording layer in the direction from an inner periphery toward an outer periphery of said optical recording medium, and second information subsequent to said first information is recorded on one of a land track and a groove track of said second recording layer in the direction from the outer periphery toward the inner periphery of said optical recording medium, wherein third information subsequent to said second information is recorded on one of the land track and the groove track of said first recording layer on which said first information is not recorded, and fourth information subsequent to said third information is recorded on one of the land track and the groove track of said second recording layer on which said second information is not recorded (see col. 9, line 48 to col. 10, line 55)

In regard to the specifics of selections of either land or groove claims 5-8, Akiyama et al. discloses that there is no limitation on the order of recording information on the recording layers (see col. 10, line 56)

In regard to claims 24 and 26, recording/reproducing apparatus claims 24 and 26 are drawn to the corresponding recording /reproducing apparatus of the recording medium as claimed in claim 1 and 2. Therefore apparatus claims 24 and 26 correspond to the recording medium claims 1 and 2 and are rejected for the same reasons of anticipation as used above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 5-8, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. U.S. Patent No. 5,881,032 in combination with Horimai et al. U.S. Patent No. 6,128,272, Applicants admitted prior art and further in view Itoi U.S. Patent No. 5,995, 458.

Regarding claims 1 and 2, Ito et al. discloses an optical recording medium having a plurality of recording layers of a double-spiral structure in which information is recorded on groove tracks (See Abstract; col. 2, lines 16-43; col. 8, lines 55-64; Figs. 1-3; 12),

Art Unit: 2656

wherein a spiral of a first recording layer of said recording layers is in a forward direction, a spiral of a second recording layer of said recording layers is in a backward direction (See Abstract, col. 8, lines 39-66; col. 10-lines 28-49; Figs. 1,2,34,10,12) , and

first information is recorded on one of a land track and a groove track of said first recording layer in the direction from an inner periphery toward an outer periphery of said optical recording medium (See Abstract; col. 2, lines 16-43; col. 8, line 55 to col. 10 line11; Figs. 1A,2,3; 12)(See col. 10, lines 43-49; “vice versa”), and

second information subsequent to said first information is recorded on one of a land track and a groove track of said second recording layer in the direction from the outer periphery toward the inner periphery of said optical recording medium (See Abstract; col. 2, lines 16-43; col. 8, line 55 to col. 10 line11; Figs. 1B,2,3; 12) (See col. 10, lines 43-49; “vice versa”).

Ito et al. teaches having a double-spiral structure with lands and grooves (groove tracks with spaces between “lands”), but fails to disclose which information is recorded on both of land and groove tracks (See col. 2, lines 16-43; col. Fig. 1,13)

However, this feature is well known in the art and as evidenced by Horimai et al., which teach a format of a recording medium for increasing capacity including a double-spiral tracks in which information is recorded on both land tracks and groove tracks (See Abstract; col. 16, lines 7-15; col. 20, lines 16-43; Figs. 11,17). Furthermore, Applicants acknowledge that s a recordable optical recording medium is known, a so-called land groove spiral structure where lands and grooves are alternately connected to form one spiral. By tracing this spiral, all the lands and grooves can be successively traced. Therefore, the physical address is updated alternately for the

Art Unit: 2656

land track and the groove track. Recording layer, **to increase the recording capacity, a plurality of recording layers must be provided.**

Itoi teach a recording medium of a double-spiral structure wherein either the land and or the groove is continuously scanned radially inward or radially outward without track jump between the groove and land (See for example Abstract and Figs 1-12, col. 2 lines 21-37)

It would have been obvious to one with ordinary skill in the art at the time of the invention to form a double-spiral recording information in which information is recorded on both land tracks and groove tracks, in order to increase the recording capacity and further performing a continuous tracking operation at the time of recording/reproduction of the lands tracks and/or the grooves tracks as taught by Horimai et al and Itoi, and further obtain continuous long reproduction avoiding adjustment when a jump is performed between land and groove,

Ito et al. expressly shows the selection of the groove of the first layer and following the groove of the second layer. But, in combination as outlined above would have been obvious to one of an ordinary skill in the art as to select the further provided double-spiral tracks including lands, which would be the left track not recorded.

The combination outlined above shows that wherein third information subsequent to said second information is recorded on one of the land track and the groove track of said first recording layer on which said first information is not recorded, and fourth information subsequent to said third information is recorded on one of the land track and the groove track of said second recording layer on which said second information is not recorded. Since, Applicants admitted prior art, Horimai et al. and Itoi teach that a switching from land and groove is known. And the benefits of specific selection of land and/or groove continuously radially inward or

Art Unit: 2656

radially outward is also suggested and known, at most by Itoi. It would have been an obvious matter of design choice to select between land and groove since the applicant has not disclosed that the specifics solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the selection of either the land and/or the groove.

In regard to claims 5-8, the specifics of selection of selections of either land or groove claims 5-8, would have been met by the combination outlined above, since teach that switching between land and groove and/or continuously selecting the land and/or groove is known, and are rejected for the same reasons of obviousness. It would have been an obvious matter of design choice to select between land and groove since the applicant has not disclosed that the specifics solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the selection of either the land and/or the groove.

In regard to claims 24 and 26, recording/reproducing apparatus claims 24 and 26 are drawn to the corresponding recording /reproducing apparatus of the recording medium as claimed in claim 1 and 2. Therefore apparatus claims 24 and 26 correspond to the recording medium claims 1 and 2 and are rejected for the same reasons of obviousness as used above

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1,2, 5-8 and 24 and 26 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2656

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 09-180350, JP 09-035272 and JP09-212869.

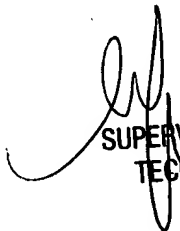
### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm), Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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HOA T. NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600  
12/21/05